

agents, consoles, printers, fax

CLAIMS

1. A method of changing entity configuration information in a call center comprising the steps of:
automatically monitoring entities in a call center;
5 selecting an entity in the call center; and
modifying configuration information of the selected entity.

2. The method of changing entity configuration information as in claim 1 wherein the step of
10 automatically monitoring entities further comprises the steps of:

monitoring physical location information of VRML rep. of the call center entities to provide an electronic floor plan; and

15 updating the electronic floor plan to provide and reflect a change in physical location information of the entities.

3. The method of changing entity configuration information as in claim 2 wherein physical location information includes Cartesian coordinates, latitude and longitude meridians, and radius vector and angle.

4. The method of changing entity configuration information as in claim 2 wherein entities includes call center agents, consoles, printers, and facsimile machines.

5. The method of changing entity configuration information as in claim 2 wherein the electronic floor

plan includes a bit map image, vector graphics, object oriented graphics, and VRML representation of the call center.

- 5 6. The method of changing entity configuration information as in claim 2 wherein the step of monitoring changes further comprises comparing physical location at a second time with physical location at a first time.
- 10 7. The method of changing entity configuration information as in claim 2 wherein updating further comprises notifying a supervisor if the physical location information has been changed.
- 15 8. The method of changing entity configuration information as in claim 2 wherein the step of monitoring physical location information further comprises:
 recording physical location information; and
 retrieving the recorded physical location
20 information.
9. The method of changing entity configuration information as in claim 8 wherein the physical location information is entered by a call center user.
- 25 10. The method of changing entity configuration information as in claim 8 wherein the physical location information is entered by a server computer.

11. The method of changing entity configuration information as in claim 8 wherein updating further comprises:

5 retrieving the recorded physical location
 information;
 translating the recorded physical location
 information to graphical form; and
 drawing the graphical form on the electronic floor
 plan.

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12. The method of changing entity configuration information as in claim 11 wherein the recorded physical location information is determined by getting physical location information from a database of call center
15 information.

13. The method of changing entity configuration information as in claim 11 wherein the step of translating includes using a look-up table to create a
20 relationship between physical location information and graphical form.

14. The method of changing entity configuration information as in claim 11 wherein the step of
25 translating further comprises determining whether the recorded physical location information contains proper Cartesian coordinates.

15. The method of changing entity configuration
30 information as in claim 13 wherein proper is information

that can be graphically represented on the electronic floor plan.

16. The method of changing entity configuration
5 information as in claim 13 wherein recorded physical
location information that is improper is maintained in a
list of entities without physical location information.

17. The method of changing entity configuration
10 information as in claim 11 wherein the step of drawing
further comprises the step of placing a graphical image
on the electronic floor plan.

18. The method of changing entity configuration
15 information as in claim 17 wherein the step of drawing
is performed by using bit map drawing tools to produce a
two-dimensional image of the electronic floor plan.

19. The method of changing entity configuration
20 information as in claim 17 wherein the step of drawing
is performed by using VRML code to produce a three-
dimensional image of the electronic floor plan.

20. The method of changing entity configuration
25 information as in claim 2 wherein the step of monitoring
further comprises identifying an entity which has
physically moved.

21. The method of changing entity configuration
30 information as in claim 2 wherein the electronic floor

plan is updated with a prediction of physical location information based upon a history of physical location information.

5 22. The method of changing entity configuration information as in claim 2 wherein the physical location information is archived and retrieved for later analysis.

10 23. A system of changing entity configuration in a call center, such system comprising:

means for monitoring physical location information of entities to provide an electronic floor plan; and

15 means for updating the electronic floor plan to provide and reflect the changes in physical location information of the entities.

20 24. The system of changing entity configuration as in claim 23 wherein entities includes call center agents, consoles, printers, and facsimile machines.

25 25. The system of changing entity configuration as in claim 23 wherein the electronic floor plan includes a bit map image, vector graphics, object oriented graphics, and VRML representation of the call center.

30 26. The system of changing entity configuration as in claim 23 further comprising means for comparing physical location at a second time with physical location at a first time.

27. The system of changing entity configuration as in
claim 23 wherein the means for updating further
comprises means for notifying a supervisor if the
5 physical location information has been changed.

28. The system of changing entity configuration as in
claim 23 wherein the means for monitoring physical
location information further comprises:

10 means for recording physical location information;
and

means for retrieving the physical location
information.

15 29. The system of changing entity configuration as in
claim 28 wherein the physical location information is
entered by a call center user.

20 30. The system of changing entity configuration as in
claim 28 wherein the physical location information is
entered by a server computer.

31. The system of changing entity configuration as in
claim 28 wherein the means for updating further
25 comprises:

means for reading the recorded physical location
information;

means for translating the recorded physical
location information to graphical form; and

means for drawing the graphical form on the electronic floor plan.

32. The system of changing entity configuration as in
5 claim 31 wherein the physical location information is stored in a database of call center information.

33. The system of changing entity configuration as in
10 claim 31 wherein the means for reading further comprises means for retrieving physical location information from a database of call center information.

34. The system of changing entity configuration as in
15 claim 31 wherein the means for translating includes a look-up table of relationships between physical location information and graphical form.

35. The system of changing entity configuration as in
20 claim 31 wherein the means for translating further comprises means for determining whether the recorded physical location information contains proper Cartesian coordinates.

36. The system of changing entity configuration as in
25 claim 34 wherein proper is information that can be graphically represented on the electronic floor plan.

37. The system of changing entity configuration as in claim 34 wherein recorded physical location information

that is improper is maintained in a list of entities without physical location information.

38. The system of changing entity configuration as in
5 claim 34 wherein the means for drawing further" comprises means of placing a graphical image on the electronic floor plan.

39. The system of changing entity configuration as in
10 claim 34 wherein the means for drawing includes bit map and VRML drawings tools.

40. The system of changing entity configuration as in
15 claim 23 wherein the means for monitoring further comprises means for identifying an entity which has physically moved.

41. The system of changing entity configuration as in
20 claim 23 further comprising means for predicting physical location information based upon a history of physical location information.

42. The system of changing entity configuration as in
25 claim 23 further comprising means for storing archived physical location information.

43. The system of changing entity configuration as in
claim 42 further comprising means for retrieving the archived physical location information.

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44. A system of changing entity configuration in a communications system, such system comprising:

an entity monitor which monitors entities for physical location information to provide an electronic floor plan; and

an informer that updates the electronic floor plan to provide and reflect changes in physical location information of the entities.

45. The system of changing entity configuration as in claim 44 wherein the call monitor comprises a programmable computer.

46. The system of changing entity configuration as in claim 44 wherein entities includes call center agents, consoles, printers, and facsimile machines.

47. The system of changing entity configuration as in claim 44 wherein the electronic floor plan includes a bit map image, vector graphics, object oriented graphics, and VRML representation of the call center.

48. The system of changing entity configuration as in claim 44 wherein the entity monitor further comprises an evaluator which compares physical location at a second time with physical location at a first time.

49. The system of changing entity configuration as in claim 44 wherein the informer further comprises a

notifier which alerts a supervisor if the physical location information has changed.

50. The system of changing entity configuration as in
5 claim 44 wherein the entity monitor further comprises:

a recorder for storing physical location information; and

a retriever for getting the stored physical location information.

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51. The system of changing entity configuration as in claim 50 wherein the informer further comprises:

a reader which retrieves the recorded physical location information;

15 a translator for relating the recorded physical
location information to graphical form; and

a drawer which places the graphical form on the electronic floor plan.

20 52. The system of changing entity configuration as in
claim 51 wherein the translator includes a look-up table
of relationships between physical location information
and graphical form.